



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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STONY BROOK, N.Y.
PATENT OFFICE
NEW YORK
PATENT OFFICE
WASHINGTON, D.C.

11-17-79

EXAMINER

ART UNIT	PAPER NUMBER
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DATE MAILED: 09-28-79

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/273,449

Applicant(s)

OHKAWA ET AL.

Examiner

David Chung

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19, 21, 23, 25 and 27-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 22 March 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-6, 10-14, 19, 21, 23, 25, and 27 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Since any surface can be described as having regions, it is unclear what is meant by use of the term "fine regions to promote emission". Because of this it is not possible to discern the bounds of the aforementioned claims. For the purposes of this examination, "fine regions" will be interpreted as being microstructures that create a surface topography.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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Claims 1 and 9 rejected under 35 U.S.C. 102(e) as being anticipated by Sawayama (U.S. 6,288,760). The embodiment shown in figure 1 discloses a reflection-type LCD comprising a light-conducting body 54, anisotropic scattering plate 51, light source 26, reflecting mirror 27, reflective aluminum plate 17, and polarizing plate 18. See column 10, lines 4 – 14 and column 11, lines 20 – 29.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Sawayama (U.S. 6,288,760). The embodiment shown in figure 1 discloses a reflection-type LCD comprising a light-conducting body 54, anisotropic scattering plate 51, light source 26, reflecting mirror 27, reflective aluminum plate 17, and polarizing plate 18. See column 10, lines 4 – 14 and column 11, lines 20 – 29. Although Sawayama does not disclose a second polarizing plate between the liquid crystal layer and the reflective plate, it would have been necessary to include one in order to use the disclosed lighting system with a twisted nematic type liquid crystal display. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to add a second polarizer to the

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lighting system of Sawayama in order to create a reflection-type TN liquid crystal display device.

Claims 2-8, 10-16, 19, 21, 23, 25, and 27-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Sawayama (U.S. 6,288,760) in further view of Tai et al. (U.S. 5,608,837). Although Sawayama does not disclose any emission promoting regions, Tai et al. shows in figure 2, a light pipe 8 having micro-prisms delineated by a ripple surface. Each of the micro-prisms has a light directing shape, such as a trapezoid cross section. Tai et al. discloses that this arrangement achieves a very high energy efficiency. See column 4, lines 23 – 50. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to add the micro-prisms disclosed by Tai et al. to the lighting system of Sawayama to achieve better energy efficiency.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (703) 306-0155. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.



KENNETH PARKER
PRIMARY EXAMINER

David Chung
GAU 2871
09/19/01